

Welcome!

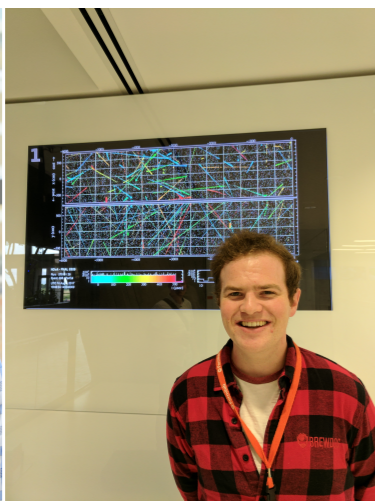
Saptaparna Bhattacharya on behalf of the UEC
53rd Annual Fermilab Users Meeting
August 10th, 2020
Zoomland!

Comet NEOWISE photo by

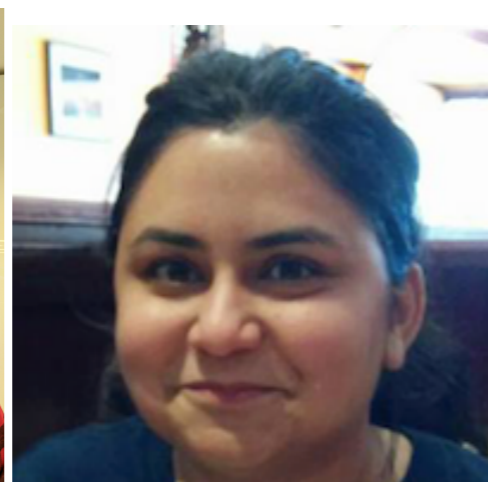
We are the Users Executive Committee!



Jonathan Asaadi



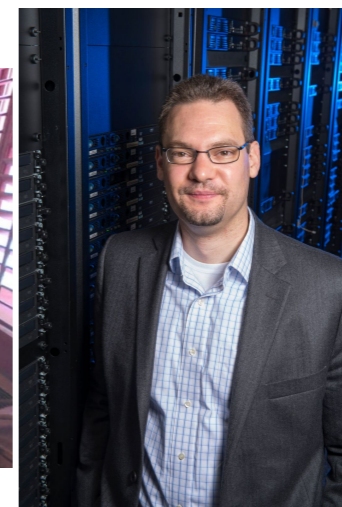
Ashley Back
Users Meeting
Subcommittee
Deputy Chair



Saptaparna Bhattacharya
UEC Chair



Kirsty Duffy
Government
Relation
Subcommittee
Deputy Chair



Oliver Gutsche
Quality of Life
Subcommittee
Chair



Cindy Joe
Users Meeting
Subcommittee
Chair



Ketino Kaadze
Government
Relation
Subcommittee
Deputy Chair



Manolis Kargiantoulakis
Education and
Public Outreach
Deputy Chair



David Martinez Caicedo
Education and
Public Outreach
Chair



Reddy Pratap Gandrajula
Users Meeting
Subcommittee
Deputy Chair



Isobel R. Ojalvo



Yuanyuan Zhang
Quality of Life
Subcommittee
Deputy Chair

- ▶ Its purpose is to provide a forum for **discussion of scientific and administrative matters** relevant to the organization and functions of the Laboratory
- ▶ The UEC **acts as an advocate** for the user community
- ▶ Please get in touch with us: uec-feedback@fnal.gov
- ▶ We will be starting our election soon! Stay tuned!



UEC 2019-2020: Front Row (left to right): Cindy Joe, Saptaparna Bhattacharya, Reddy Pratap Gandrajula, David Martinez Caicedo. Back Row (left to right): Kirsty Duffy, Manolis Kargiantoulakis, Ashley Back, Yuanyuan Zhang. Not pictured: Oliver Gutsche, Isobel R. Ojalvo, Jonathan Asaadi, Ketino Kaadze.



UEC and FSPA present



MEET & GREET

Meet the Fermilab Users Executive Committee and learn about what we do!

FRIDAY, JAN 17TH, STARTS AT 3:00PM
WilsonHall 2nd floor XO

The event overlaps with the W&C seminar. In addition to regular w&c, snacks will be provided!



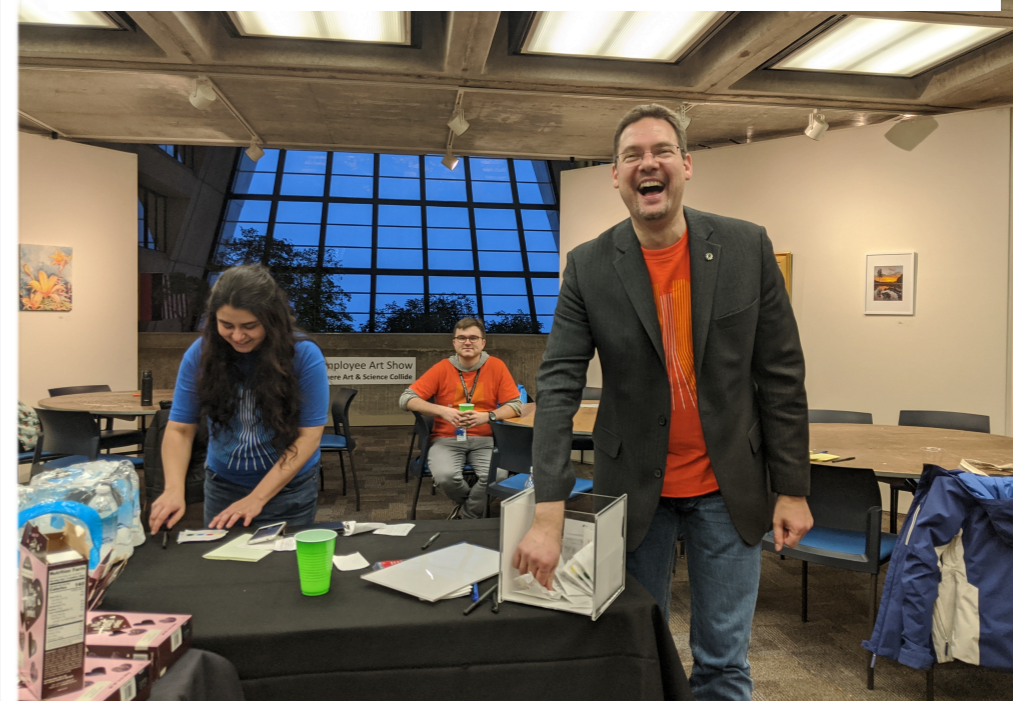
(we encourage those interested to also attend the seminar at 4 pm)
Employees and Users are Welcome to attend

Raffle with prizes!

Made with PosterMyWall.com **Learn more about UEC at uec.fnal.gov**



<https://news.fnal.gov/2020/01/announcing-the-2019-21-users-executive-committee-come-meet-with-us-on-jan-17/>

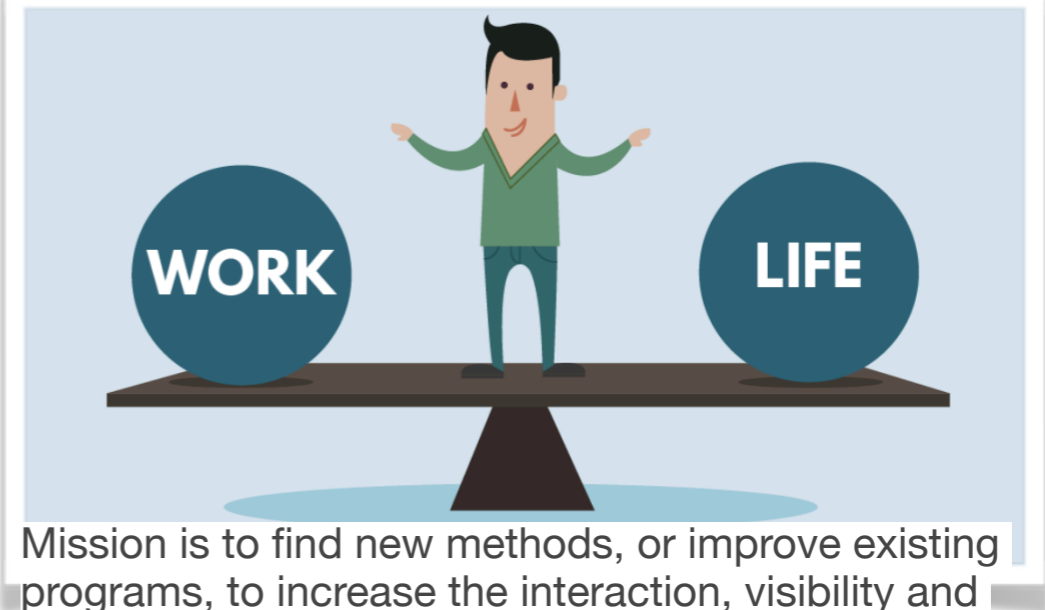


Government Relations



Responsible for the organization of an annual spring trip to Washington, D.C

Quality of Life



Mission is to find new methods, or improve existing programs, to increase the interaction, visibility and further the careers of young physicists

Users Meeting



Organizes the annual Fermilab Users Meeting

Education and public outreach



Aims to broaden and enhance the existing education and public outreach efforts at the lab through user participation

Our virtual annual DC “trip” in 2020

Slide adapted
from K. Duffy

- ▶ We decided **not to travel** to DC this year due to COVID-19
 - ▶ Trip was scheduled for March 17-19
 - ▶ Decision was made not to travel on March 9th and all attendees did an excellent job in pivoting to **virtual meetings**
- ▶ Meetings were assigned in the same way as previous years
 - ▶ We requested meetings via **phone call or zoom**
 - ▶ **Emailed packet materials** ahead of our meetings
- ▶ In general that offices were accommodating and switched to phone meetings
- ▶ Despite exceptional circumstances made time to talk to us

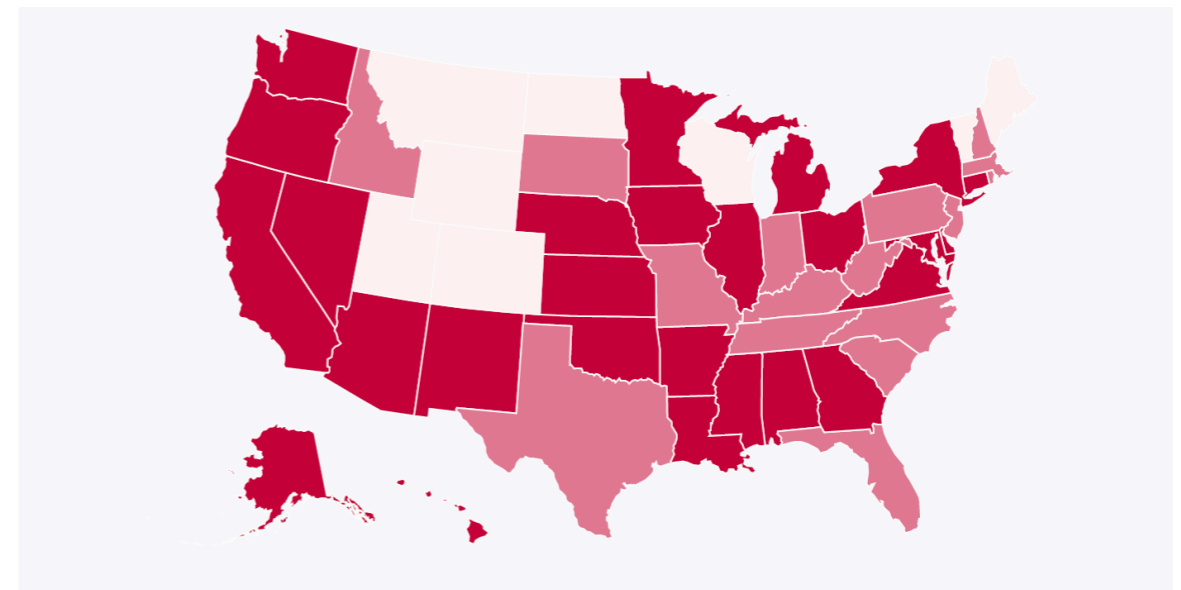


Summary Statistics of the annual DC “trip”

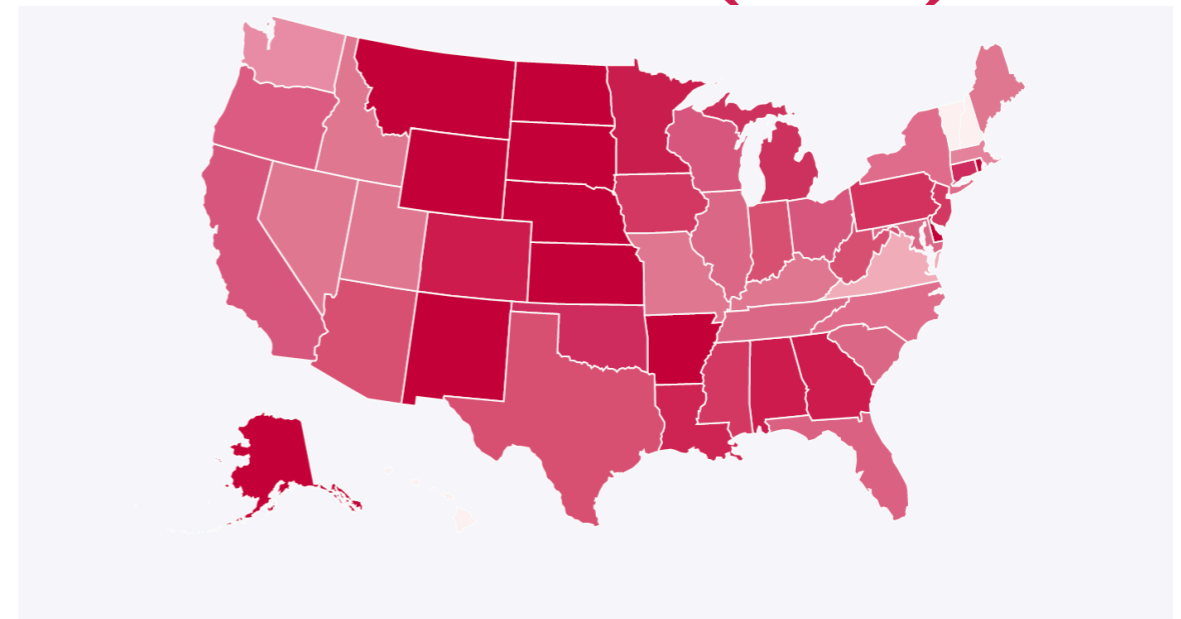
Slide adapted
from K. Duffy

- ▶ 67 participants:
 - ▶ 37 UEC, rest: USLUA (20), SLUO (10)
 - ▶ 24 women
 - ▶ 44 early career (students and postdocs)
- ▶ Contacted 498 offices and met (via phone call) with **303 offices**
- ▶ Delivered our message (via email) to **351 offices in total**

Message delivered to 68/100 Senate offices



Message delivered to 283/439 House offices (64.5%)



Message to Congress

Slide adapted from K. Duffy, J. Zennamo and S. Rappoccio

We contact Congress to deliver a **clear and concise message**:

- ▶ We represent over 6000 scientists from over 180 institutions across the country working on **exciting** science
- ▶ As a community, we are **well focused** with a **clear plan** outlined in **the P5 report**
- ▶ Succeeding at implementing this plan, making optimal use of the funds given to us, by staying **on time and on budget**
- ▶ The science that we perform **uniquely trains the future innovators of the world**, both in academia and the broader economy
- ▶ Our science is important to the United States
- ▶ We drive tomorrow's innovations



The U.S. particle physics community asks for your support of the P5 Report's strategic plan by the passage of appropriations bills for FY 2021 that include:

At least \$1285M for High Energy Physics within the Department of Energy's Office of Science

At least \$9B for the National Science Foundation

This level of funding will provide needed support for scientific researchers at universities and national laboratories throughout the nation and will advance P5 priority projects, operations of existing and recently completed large facilities, and the completion of small and medium-sized projects, to explore the nature of neutrinos, the Higgs Boson, dark matter, dark energy, and the yet-to-be-discovered forces that govern the origin and evolution of our universe.

The "Ask"

Michael Cooke (DOE) coordinated a group of community stakeholders to develop materials for public engagement: hosted at usparticlephysics.org

The collage features several key materials:

- Particle Physics in the United States:** A map of the United States with red dots indicating various particle physics sites and activities.
- Particle Physics Builds STEM Leaders:** A poster showing a group of people working together in a laboratory setting.
- Particle Physics is Discovery Science:** A poster with the text "Exploring the Universe" and "The challenge of particle physics is to discover what our world is made of and how it works at the smallest scales."
- Particle Physics Delivers Discovery Science Through Collaboration:** A poster featuring a large circular structure, likely a particle detector.
- Particle Physics Makes a Difference in Your Life:** A poster with the text "Global science, local impact" and "Particle physics is a global discovery science central to the modern innovation ecosystem."
- Dark Matter Science - Beyond the Ordinary:** A poster with a cosmic background and the text "Dark Matter Science - Beyond the Ordinary".
- The United States at the Large Hadron Collider:** A poster showing a large blue cylindrical structure, likely a particle accelerator.
- Understanding nature's most mysterious particle:** A poster with the text "Neutrinos are the most abundant matter particles in the universe. They are produced in great quantities in the sun and other stars. Each second, a trillion neutrinos pass through our bodies, yet very little is known about them."
- SLAC National Accelerator Laboratory:** A poster with the text "SLAC National Accelerator Laboratory" and "As one of 17 Department of Energy national labs, SLAC pushes the frontiers of human knowledge and drives discoveries that benefit humankind."
- Cosmic Acceleration:** A poster with the text "Cosmic Acceleration" and "Left: One of the meter-scale lenses for the DOE's Dark Energy Spectroscopic Instrument, now installed at NSF's Kitt Peak National Observatory."
- Fermilab:** A poster with the text "Fermilab" and "Fermilab is America's premier laboratory for particle physics and accelerator research, funded by the U.S. Department of Energy."
- Vera C. Rubin Observatory:** A poster with the text "Vera C. Rubin Observatory" and "The Legacy Survey of Space and Time (LSST)".
- VetTech Program at Fermilab:** A poster with the text "VetTech Program at Fermilab" and "Are you a veteran with technical or computing skills? Then we want to hear from you."
- 3-billion-pixel Camera:** A poster with the text "3-billion-pixel Camera" and "Rubin Observatory's Legacy Survey of Space and Time (LSST) will scan the entire visible southern sky every few days for a decade - the widest, fastest and deepest view of the night sky ever observed."

One key new brochure developed this year details links between **HEP and AI**

- ▶ Particle physicists have been using AI for decades. We have **specific challenges** (large datasets, harsh environments, high speed data-taking, sparse data) that need **innovative solutions** → these solutions then feed back into industry
- ▶ Gives specific examples of **industry collaboration** and how we train an **AI-ready workforce**

AI is a **national priority** and was highlighted as a high priority for many offices (and Senate Energy and Natural Resources staff) → this brochure is timely and was very well received. We were encouraged to continue positioning **HEP as a leader in AI**



Fermilab vet tech and National lab jobs access program

- ▶ Took information about Fermilab's Vet Tech program, that offers **paid summer internships to veterans** to train **skilled technician workforce**
- ▶ FY20 National Defense Authorization Act establishes the **National Laboratory Jobs Access Program** to build on this: **pre-apprenticeship and apprenticeship** programs at DOE national labs aimed especially at **veterans and minorities**
- ▶ Very well received - *Prof. B. Quinn: "Huge enthusiastic support of and praise for this. Many offices particularly keen on getting detailed information, and especially expanding it to reach more Vets (and districts) across the US. This is a HUGE opportunity to garner more and more passionate support for DOE Office of Science if we can expand"*

Fermi National Accelerator Laboratory

VetTech Program at Fermilab

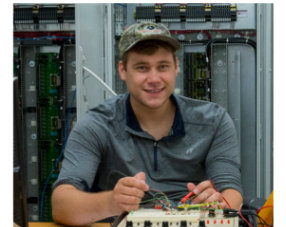
Are you a veteran with technical or computing skills? Do you want to pursue a career at the leading edge of technology and innovation? Then we want to hear from you.

VetTech Internships

Every year, Fermilab's VetTech internship program provides training and career opportunities for military veterans seeking to build or enhance their technical and computing career options. The program places veterans in a wide range of jobs, from mechanical to electrical to computing and software development. The program's aim is twofold: identify skilled people to fill open positions at Fermilab, and provide valuable job experience to veterans who plan to pursue a degree in a technical field.

VetTech interns may fabricate, assemble, calibrate, operate, test, repair or modify electronic or mechanical equipment, systems, devices or databases. The interns may also work in information technology, procurement or perform environmental, safety and health duties.

The VetTech internships are paid 10-week, full-time internships that start in June. The application period runs from November to January.



Learn More

Fermilab is located 40 miles west of Chicago in Batavia, Illinois. Our laboratory is home to particle physics research, a herd of buffalo and 1,100 acres of prairie. To find out more about our VetTech program and to apply, visit diversity.fnal.gov/VetTech. To browse our current job openings, go to jobs.fnal.gov.

Diverse people. Diverse jobs. Great science.

“Dear Colleague” Letters

Slide credit
K. Duffy

- ▶ During our meetings, we ask all offices to consider signing on to “Dear Colleague” letters sponsored by HEP supporters in Congress
- ▶ The number of signatories is also a source of feedback regarding the support of Congress to HEP through the DOE Office of Science and the NSF
- ▶ Despite the challenging circumstances of our trip, **three of the four letters received more signatures this year** than for FY20

FY21 Senate DOE Office of Science Letter **31 signatures**
WASHINGTON, DC 20510
March 30, 2020
30 for FY20

Senator Lamar Alexander
Chairman
Subcommittee on Energy and Water Development
Senate Committee on Appropriations
142 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Alexander and Ranking Member
As you begin work on the Fiscal Year 2021 appropriations bill, we write to express our strong support for robust funding for the Department of Energy (DOE) Office of Science and request that you ensure that the bill includes sufficient funding for the DOE Office of Science.

FY21 House DOE Office of Science Letter **142 signatures**
Washington, DC 20515
March 17, 2020
160 for FY20

The Honorable Marcy Kaptur
Chairwoman
Energy and Water Development House Appropriations Committee
H-305, U.S. Capitol
Washington, DC 20515

The Honorable Mike Simpson
Ranking Member
Energy and Water Development House Appropriations Committee
1016 Longworth House Office Building
Washington, DC 20515

FY21 Senate NSF Letter **40 signatures**
WASHINGTON, DC 20510
March 30, 2020
37 for FY20

Senator Lamar Alexander
Chairman
Subcommittee on Energy and Water Development
Senate Committee on Appropriations
142 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Alexander
As you begin work on the Fiscal Year 2021 appropriations bill, we write to express our strong support for robust funding for the National Science Foundation (NSF) and request that you ensure that the bill includes sufficient funding for the NSF.

For more than 70 years, the NSF has provided a foundation for scientific research in the physical sciences and related fields. NSF-funded research has produced transformative scientific discoveries that have led to new industries, products, services, and enhanced the lives of all Americans. For example, NSF-funded research has supported technological advancements in artificial intelligence, advanced manufacturing, quantum computing, and space exploration.

Senator Dianne Feinstein
Ranking Member
Subcommittee on Energy and Water Development

FY21 House NSF Letter **177 signatures**
Washington, DC 20515
March 13, 2020
173 for FY20

The Honorable Jose Serrano
Chairman
Subcommittee on Commerce, Justice, Science, and Related Agencies
H-307, The Capitol
Washington, D.C. 20515

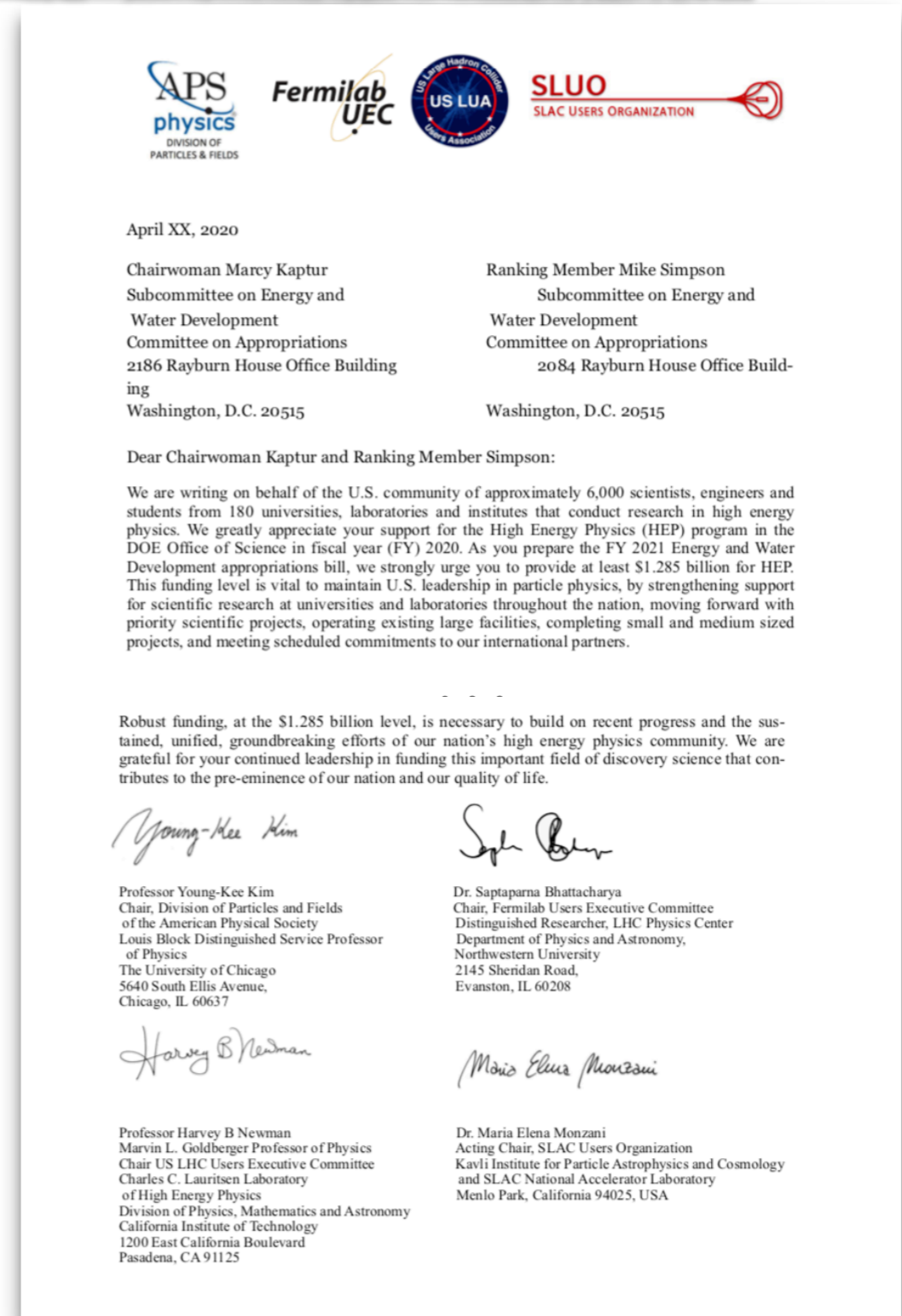
The Honorable Robert Aderholt
Ranking Member
Subcommittee on Commerce, Justice, Science, and Related Agencies
1016 Longworth House Office Building
Washington, D.C. 20515

Dear Chairman Serrano and Ranking Member Aderholt:

We write to respectfully request that the National Science Foundation (NSF) receive an appropriation of at least **\$9 billion** in the Fiscal Year (FY) 2021 Commerce, Justice, Science, and Related Agencies Appropriations bill.

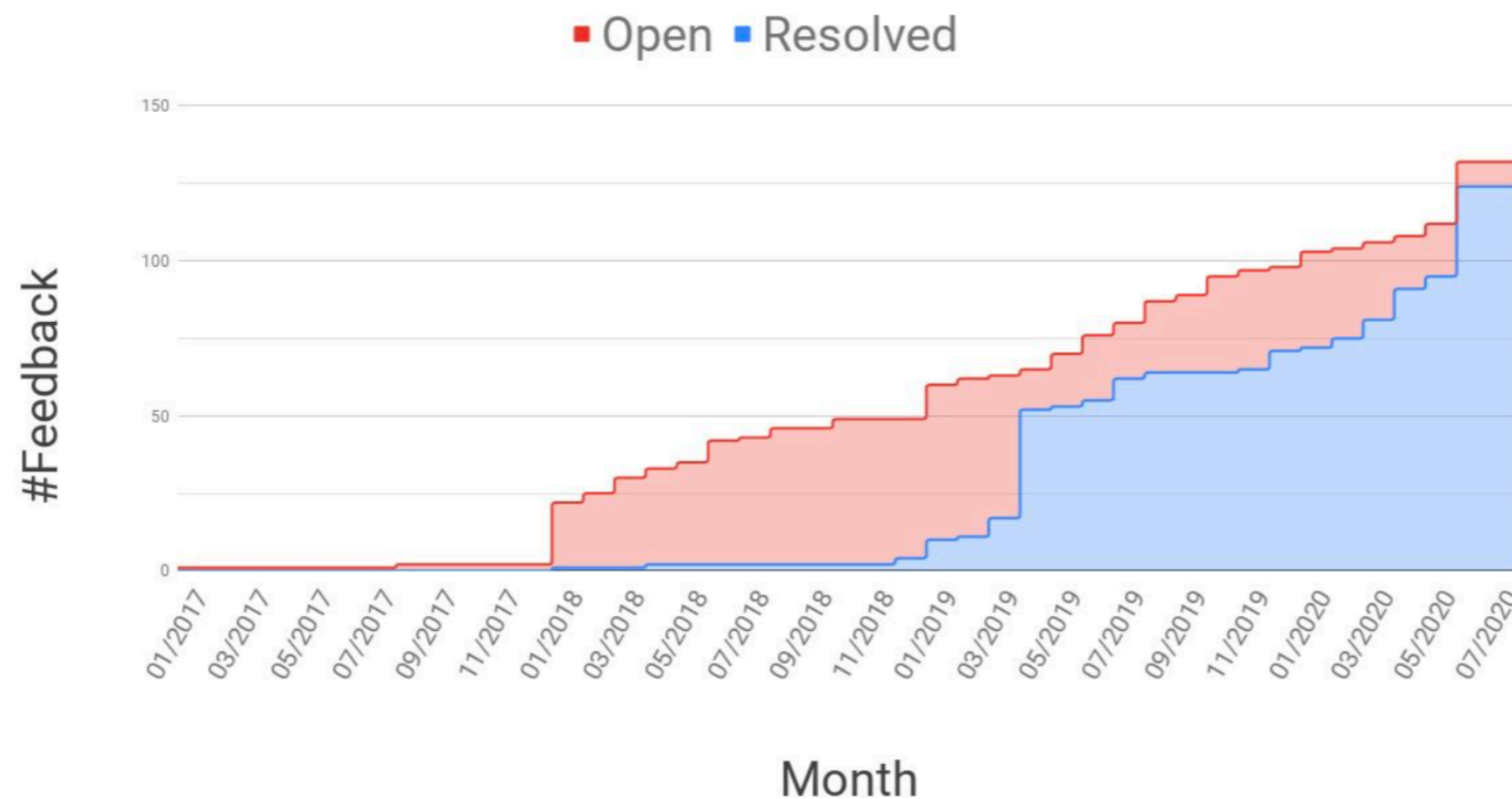
Now in its 70th year, the NSF is an independent federal agency created by Congress to promote the progress of science, secure the national defense, and to advance the nation's health, prosperity, and welfare. The scientific research and educational programs supported by NSF are integral to the continued success of America's innovation enterprise. NSF funded research has produced transformative scientific discoveries that have led to new industries, products, services, and enhanced the lives of all Americans. For example, NSF-funded research has supported technological advancements in artificial intelligence, advanced manufacturing, quantum computing, and space exploration.

- ▶ **Maintaining relationships with Congressional offices is a year-round task**, and is crucial to keeping the HEP message relevant through the appropriations office
- ▶ In addition to **following up with individual offices** on current developments, the Chairs of the three Users' groups and the Chair of DPF sent a **letter to the Chair and Ranking Members of the appropriations committees** to help further reinforce the message that we delivered
- ▶ Involved in Public Policy and Government Engagement in the Community Engagement frontier of the Snowmass process



Quality of Life

- ▶ Quality of life (QoL) subcommittee have received several feedback related to the COVID crisis
 - ▶ Worked with the lab management to provide assistance to users
 - ▶ Quick turnaround of feedback items
- UEC Feedback



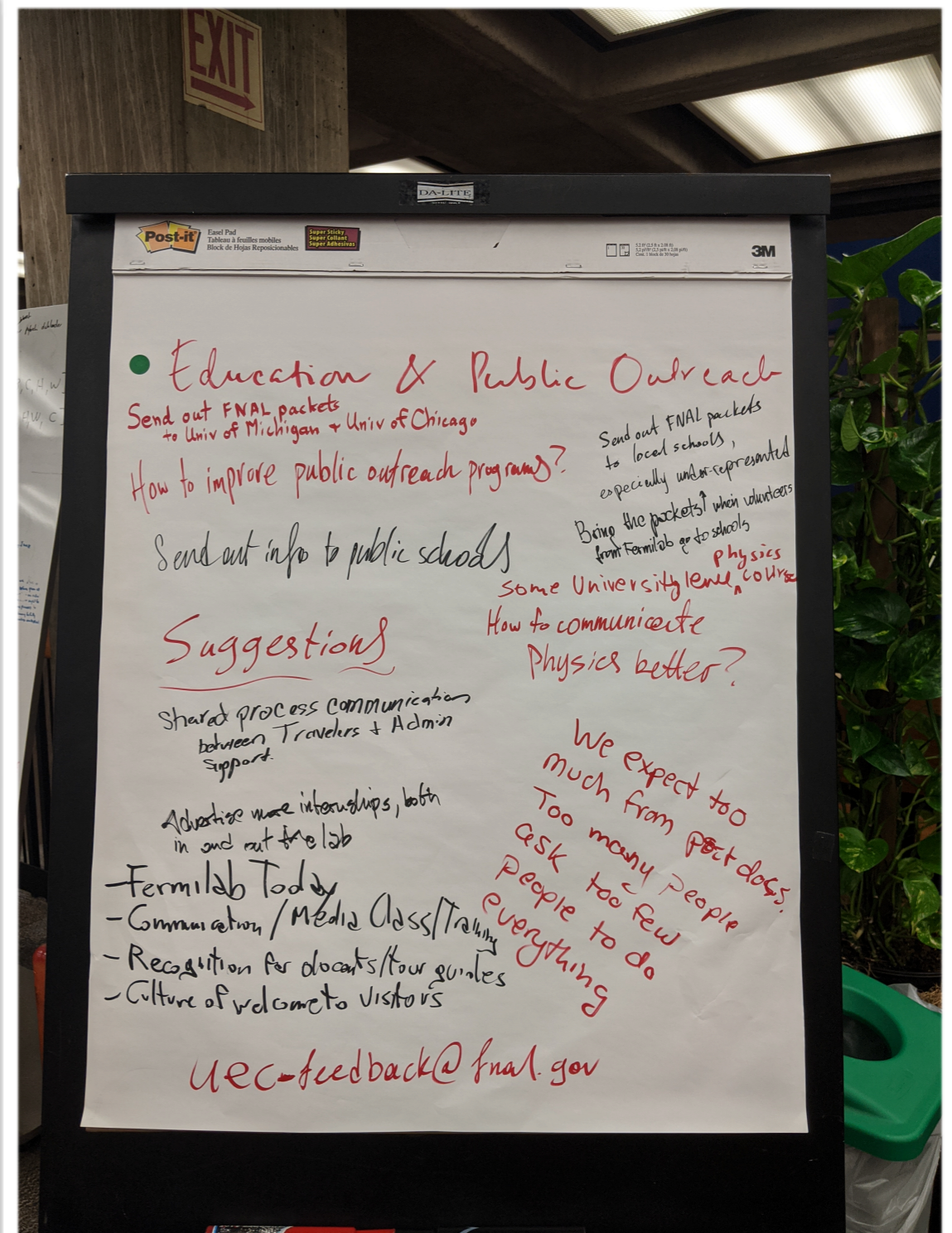
Quality of life (QoL) subcommittee have resolved QoL related feedback received through uec-feedback@fnal.gov, discussions in UEC meetings and through emails to the committee members

Announcement from Global Services

From Hannah Ward and Griselda Lopez:

“There will be some changes to user access requests this coming fall. In order to streamline the approval process, the forms will require additional information and steps. You will receive emails with more details about the updated forms and instructions in the coming weeks. Please keep an eye out for these emails and review them so your account requests go smoothly.”

- ▶ Science communication training on Tuesday, August 11th, 8-9 am (Central) led by Becky Thompson from the Office of Education and Public Outreach
- ▶ Liaising with the Office of Education and Public Outreach to better serve users
- ▶ The landscape of outreach is vastly different in the aftermath of COVID



How to join the UEC?

- ▶ We will send an email within the next 24 hours to start the election procedure
- ▶ You need to collect 10 digital signatures and mail it to usersoffice@fnal.gov
- ▶ Once we receive signatures, we will start the election
- ▶ Election will be open for a period of two weeks

FERMILAB USERS EXECUTIVE COMMITTEE

Nomination Form 2019-2021

The undersigned members of the Fermilab Users Organization nominate

NAME:

SIGNATURE:

EMAIL:

INSTITUTION/PROJECT:

for membership on the Users Executive Committee. The nominee has indicated a willingness to serve as indicated by signature. This form should be received to the Users Office ([in-person](#) or via email usersoffice@fnal.gov or via mail at [Fermilab, PO Box 500, MS 103 – Users Office, Batavia, IL 60510](#)) **no later than 3 pm CT on Wednesday, July 31, 2019.** (In the case of mailing the form, please ensure that the form is received by the Users Office by the above listed deadline).

NAME:





SIGNATURE:

1.) _____



Additional Material

We are one Fermilab

-  Everyone is worthy of respect
-  Encourage discussion
-  Genuinely listen
-  Collaborate
-  Respect the messenger
-  Have courage
-  Own your voice
-  Be kind
-  Fresh perspectives lead to innovation
-  Encourage others to speak
-  Own it, mistakes happen
-  Share the air

Fermilab has a [Statement of Community Standards](http://directorate-docdb.fnal.gov/cgi-bin/RetrieveFile?docid=174) that all members of the Fermilab community shall follow:
<http://directorate-docdb.fnal.gov/cgi-bin/RetrieveFile?docid=174>

You are encouraged to raise concerns about any violation of this Statement of Community Standards.

Contact your [human resource partner](#) at +1-630-840-4669, or report via the [Fermilab Action Line](#) at +1-630-840-4000.

Feedback Overview

(* Excludes items we don't publish)

Resolved

COUNT of Comment #	Responsible				Grand Total
	Government Relations	QoL	UEC	Users Meeting	
Bathrooms:Village			2		2
Bathrooms:WH			5		5
Bikes			2		2
Cafeteria:Hours			2		2
Communication			2		2
Computing			1		1
Facilities			1		1
Facilities:Village			3		3
Facilities:WH			8	4	12
Food			6		6
Global Services			1	1	2
Library				1	1
Mail			1		1
Metrics	1				1
Parking:WH			4		4
Policy				4	4
QoL			24	1	25
Rental Car			3		3
Site			5		5
Site Access			1		1
Taxi			4		4
UEC				2	2
UEC talks					1
User Registration			1		1
Users meeting				4	4
Village			1		1
Visa			1		1
Grand Total	1		78	13	97

Open

COUNT of Comment #	Responsible	
	QoL	Grand Total
Computing	1	1
QoL	3	3
Grand Total	4	4

Follow up on feedback on director's all-hands message from June 2, 2020

- QoL received 18 feedback items after the director's all-hands message from June 2, 2020
 - All items had been anonymized and had been submitted to the directorate via Kate Gregory
 - We decided not to publish these items on the feedback summary page.
 - The directorate confirmed that they read the feedback.
 - New:
 - We informed the submitters who are not anonymous that we passed on their feedback.

Quality of Life

- The QoL sub-committee resolved 1 feedback item since the last UEC meeting on June 19 and did not receive new feedback from the community in the same time period. The QoL sub-committee is working on currently 4 open feedback items.
- The UEC flyer ([Google Doc](#)) was submitted to Sandra Charles to be included in the new employee orientation.
- We confirmed with the directorate that the feedback received after the director's message to the Fermilab community on June 2 was received and read. We anonymized the feedback before we submitted it to the directorate. We now informed everyone who provided feedback that their input was received by the directorate.
- After receiving the question from the community, we are trying to find out from the lab if there is publicly available information about lab staff and user statistics, like age, gender, etc. and how these quantities are changing during the years. So far, we have not been able to reach the appropriate people.
- We received cafeteria food related feedback.
 - The request for supporting more different dietary needs will be brought up in the next Food Advisory Committee meeting. Unfortunately, this committee has not met since the pandemic started and will only resume after the cafeteria reopens. The preliminary reply from John Hatfield is that Taher has been very supportive in supporting dietary needs as requested in the past. If a person has a dietary restriction, they should contact the Taher chef once the cafeteria resumes full operations and I am sure that they will be accommodated. If for any reason there are any issues, they should contact John Hatfield directly regarding this.
 - The ability to provide FDA allergen information for all cafeteria food exists. The allergen information is available in the cafeteria, and also on the Taher Food 4 Life app which is available in your app store.
- We received feedback that Fermilab should create an ombudsperson office. We forwarded the request to the directorate through Luciano Ristori who replied that the Lab is actually looking into this right now and it is likely that Fermilab will get a dedicated lab wide ombudsperson.
- We received feedback to remind users and contractors how to address issues they may encounter with harassment, discrimination, etc. We contacted Deanne Randich from HR to discuss how to proceed. We might also be able to schedule a parallel talk at the August 2020 users meeting about this topic.
- We continue to bring up with the directorate that indico.fnal.gov does not allow conferences without FNAL employee participation in organizing committee and asked to document the policies related to indico.fnal.gov and hosting conferences. Luciano Ristori replied that this is being looked into and hopefully Fermilab will be able to clarify what the rules and the procedures are soon.

APPROPRIATIONS SUBCOMMITTEE MEETINGS

Slide adapted
from F. Psihas

Committee

Senate Energy and Water Development

House Commerce, Justice, Science, and Related
Agencies

Senate Commerce, Justice, Science, and Related
Agencies Subcommittee

House Energy

House Research and Technology

Senate Science, Oceans, Fisheries, and Weather
Subcommittee

House Energy and Water Development, and Related
Agencies

Senate Energy Subcommittee

**Meetings arranged every
year by Prof. Breese Quinn**



These high-impact meetings provide us with valuable feedback for our message and give us an insight into the appropriations process for the coming fiscal year

APPROPRIATIONS SUBCOMMITTEE MEETINGS

Slide adapted
from F. Psihas

Committee

Senate Energy and Water Development

House Commerce, Justice, Science, and Related Agencies

Senate Commerce, Justice, Science, and Related Agencies Subcommittee

House Energy

House Research and Technology

Senate Science, Oceans, Fisheries, and Weather Subcommittee

House Energy and Water Development, and Related Agencies

Senate Energy Subcommittee

These high-impact meetings provide us with valuable feedback for our message and give us an insight into the appropriations process for the coming fiscal year

Meetings arranged every year by Prof. Breese Quinn

Two points of specific feedback from Prof. Quinn:

House E&W Staff: *Good chance that E&W budget will decrease. They would work to protect Office of Science. Not sure how well HEP will fare within Office of Science, though, due to other major priorities - will not be as good as last few years*

Senate E&NR Staff: *AI is a very high priority. HEP should get positioned as a leader in AI*

EXECUTIVE/AGENCY MEETINGS

- Beyond talking to Congress we also arranged meetings with OSTP, NSF, and DOE
- OMB was unavailable to meet this year (the NSF Examiner and DOE Examiners were both out of town) - we look forward to resuming meeting with them next year
- Meetings arranged by Prof. Harvey Newman each year
- These meetings enable us to communicate directly to the agencies what we are hearing on the Hill, and to convey the messages we are delivering

Office
Office of Science and Technology Policy
National Science Foundation
Department of Energy Office of High Energy Physics
Department of Energy Headquarters



DISTRICT-SPECIFIC INFORMATION


New last year, very effective: automated, district-specific grant and procurement information

District-specific materials provide **direct links** between appropriated funds and local economic benefits

- DOE Office of Science HEP research grants
- DOE Office of Science contracts
- NSF MPS research grants
- SULI and CCI students
- Fermilab procurements (as an example of indirect HEP spending)

Developers: Rob Fine, Michael Baumer, Justin Vasel, Fernanda Psihas

From **Michael Baumer's** https://mbaumer.github.io/us_hep_funding/




Kirsty Duffy
 Fermilab Users Executive Committee
 Fermi National Accelerator Laboratory
 P.O. Box 500 - MS 220
 Batavia, IL 60510
 Phone: 331.701.8528
 E-mail: ke.duffy1@fnal.com

The Honorable Bryan Steil
 United States House of Representatives
 1408 Longworth House Office Building
 Washington, D.C. 20515

March 19, 2020


Dear Representative Steil:

In fiscal year 2019, Fermilab spent \$281 million in the United States to purchase goods and services in 44 states and the District of Columbia. Please find below specific information about goods and services purchased by Fermilab from your State or district during this time.



Amount Range	States
\$1,000-\$100,000	Alabama, Arkansas, Delaware, Idaho, Maine, Mississippi, Nevada, Oklahoma, Vermont, Wyoming
\$100,000-\$1 million	Alabama, Georgia, Iowa, Kentucky, Louisiana, Missouri, Nebraska, New Hampshire, North Dakota, Rhode Island, South Carolina, Tennessee, Utah
\$1 million-\$2 million	Connecticut, Florida, Indiana, Kansas, Maryland, Michigan, New Mexico, North Carolina, Ohio, Oregon, Washington
\$2 million-\$5 million	Colorado, District of Columbia, Massachusetts, Pennsylvania, Texas
\$5 million-\$10 million	Minnesota, New York, Virginia, Wisconsin
More than \$10 million	California, Illinois, New Jersey, South Dakota

Vendor	ZIP Code	Amount (\$)
Superior Crane Corporation	53189	\$201,100
Premier Fall Protection Inc	53182	\$7,495
Konecranes Inc	53189	\$6,212
Aegis Laboratory Solutions Inc	53179	\$4,760
Industrial Air Power LLC	53150	\$648




The Honorable Christopher Coons
 United States Senate
 127a Russell Senate Office Building
 Washington, D.C. 20515

March 25, 2019

Dear Senator Coons:

The DOE Office of Science and NSF Directorate for Mathematical and Physical Sciences (MPS) directly support scientists, engineers, and students in all 50 States, the District of Columbia, and Puerto Rico through research grants to academic institutions and contracts to supporting industries. In fiscal year 2018, the Department of Energy (DOE) Office of Science had a budget of \$908 million for High Energy Physics, and the National Science Foundation (NSF) had a budget of \$7.7 billion.



Institutions receiving DOE HEP grants during FY18

Please find below specific information about grants and contracts that were awarded by the DOE Office of Science and NSF to institutions and businesses in your State during FY18 and preceding years.

Delaware State

In the past 6 years, this district has been awarded:

• DOE Office of Science HEP research grants totaling: <i>Grants to researchers in your State from the DOE Office of High Energy Physics</i>	\$1,658,825
• DOE Office of Science contracts totaling: <i>Contracts with companies in your State, primarily related to the operation of DOE National Laboratories</i>	\$NA
• NSF MPS research grants totaling: <i>Grants to researchers in your State from the NSF Directorate for Mathematical and Physical Sciences</i>	\$37,093,195

